II. REMARKS

By the present amendment, independent claims 8 and 9 have been amended to depend upon independent claim 1. The present amendment adds no new matter to the above-captioned application.

The Examiner requires restriction of the present application, under 35 U.S.C. §§ 121 and 372, to one of the following inventions:

Group I: Claims 1-3, drawn to a method for water hammerless opening of a fluid passage;

Group II: Claims 8-12 and 15-17, drawn to a method for water hammerless opening of a fluid passage;

Group III: Claim 7, drawn to a device for water hammerless opening of a fluid passage;

Group IV: Claims 4-6, drawn to a device for water hammerless opening of a fluid passage; and

Group V: Claims 13 and 14, drawn to a method for supplying a chemical solution.

The Examiner further contends that Group II, claims 8-12 and 15-17, further requires restriction to one of the following species of Group II:

Species "a": the non-illustrated species of claims 8 and 10-12 wherein when vibration is generated, the step operating pressure is raised; and

Species "b": the non-illustrated species of claims 9 and 15-17 wherein when vibration is generated, the step operating pressure is lowered.

The Examiner contends that these two species also fail to satisfy the unity of invention requirement because they are not so linked as to form a single general inventive concept under PCT Rule 13.1. The Examiner gives no reasons for the restriction of species.

The Examiner contends that the inventions are distinct from each other and do not relate to a single general inventive concept under PCT Rule 13.1 because they lack the same or corresponding special technical feature required by PCT Rule 13.2. Specifically, the Examiner contends that Group I lacks unity with Groups II-V because only Group I requires the step of moving the valve to a state of full opening. The Examiner contends that Group II lacks unity with Groups I and III-V because only Group II requires the step of determining the operating pressure by repeating a plurality of adjustments of raising or lowering the step operating pressure. The Examiner contends that Group III lacks unity with Groups I, II, IV and V because only Group III requires a tuning box to adjust the control signal so that the output from the conversion device makes the vibration signal nearly zero. The Examiner contends that Group IV lacks unity with Groups I-III and V because only Group IV requires a comparison computation circuit to compare the vibration signal with an upper limit setpoint. The Examiner contends that Group V lacks unity with Groups I-IV because only Group V requires the use of a chemical solution.

The Examiner further contends that the special technical feature common to Groups I to V can be found in the family of patents originating with "JP 2002-367420."

Applicants elect, with traverse, Group I, claims 1-3, for further prosecution on the merits. Applicants contend that claims 8-12 and 15-17 have been amended to have unity of invention with the claims of Group I. Therefore, Applicants contend that Group I now includes claims 1-3, 8-12 and 15-17.

Applicants further elect species "a" for further prosecution on the merits. Species "a" corresponds to claims 8 and 10-12. Species "b" corresponds to claims 9 and 15-17. The election of species is made with traverse. Specifically, both species "a" and "b" have the same object in that occurrence of a water hammer is prevented at the time of opening the fluid passage. Furthermore, the opening of a valve in both species "a" and "b" is performed

using two-step operations. Also, the apparatuses and devices used in species "a" and "b" are exactly the same (e.g., sensor (18), tuning box (19), electro-pneumatic conversion device (20), etc.).

As explained in ¶ [0068] of Applicants' specification, claims of species "a" refer to how Pa is adjusted, as supported by Figure 8, in the case of a normally closed type valve, which is a valve that is fully closed when Pa = 0 and is fully opened when Pa = a prescribed value. For such a normally closed type valve, the valve is gradually opened with increase of the operating pressure to the fully opened state when Pa = a.

With respect to the claims of species "b" (not specifically illustrated), these claims refer to how Pa is adjusted in the case of a normally opened type valve, which is a valve that is fully closed when Pa = a (a prescribed value) and is fully opened when Pa = 0. Thus, a normally opened type valve is a valve that gradually opens with decrease of the operating pressure so that the valve is fully opened when Pa = 0. Therefore, as would be instantly appreciated by a person of ordinary skill in the art, these types of valves (i.e., the normally closed type valve and the normally opened type valve) are technologically the same with respect to the fact that the value of Pa is adjusted in accordance with position when vibration has occurred.

With respect to the inventions of previous Groups I and II, which are presently consolidated by amendment to a single group, these groups share the special technical feature wherein, by supplying two-step operating pressure Pa, movement of the valve body is held for a certain period of time during the course of opening the valve. In this way, occurrence of a water hammer can be prevented.

For all of the above reasons, Group I now contains claims 1-3, 8-12 and 15-17, and the Examiner has failed to demonstrate that the inventions of species "a" and "b" do not share the same special technical feature and that this special technical feature is anticipated by prior

art. Consequently, the Examiner's restriction/election requirement should be withdrawn in part, and claims 1-3, 8-12 and 15-17 should be examined with this application.

The below-signed attorney for Applicants welcomes any questions.

Respectfully submitted,

GRIFFIN & SZIPL, P.C.

Joerg-Uwe Szipl
Registration No. 31,799

GRIFFIN & SZIPL, P.C.
Suite PH-1
2300 Ninth Street, South
Arlington, VA 22204

Telephone: (703) 979-5700
Facsimile: (703) 979-7429
Email: GandS@szipl.com
Customer No.: 24203